

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A computer program product that includes a computer-readable medium, the medium having stored thereon a sequence of instructions which, when executed by a processor, causes the processor to execute a method, the computer program product comprising:

an inference engine communicably coupled to a virtual fab, wherein the virtual fab comprises a plurality of entities that are communicably coupled via a network, and a database that stores client information, and the virtual fab is configured to:

receive integrated circuit manufacturing orders from a plurality of clients; and

facilitate access to client information by the plurality of clients and the entities as the entities produce the integrated circuit manufacturing orders; and

wherein the inference engine is configured to rank ~~[[a]]~~ the plurality of clients using at least one parameter associated with each of the plurality of clients, the inference engine comprising:

a user interface configured to enable a user to select the at least one parameter;

a knowledge collection module configured to collect client information based on the at least one parameter; and

a calculation module configured to receive the collected information and calculate a client listing using a parameter-based cost function.

2. (Previously Presented) The computer program product of claim 1 wherein the at least one parameter includes one of manufacturing technology, product type, volume of purchase order, client physical region, design library, tapeout instance, technology file, and chip implementation.

3. (Previously Presented) The computer program product of claim 2 wherein the manufacturing technology includes 0.13 m and below, 0.15 m to 0.25 m, and 0.25 m and above.

4. (Previously Presented) The computer program product of claim 2 wherein the product type includes one of digital, analog, mixed signal, radio frequency (RF), memory, micro-electro-mechanical system (MEMS), and high power.

5. (Previously Presented) The computer program product of claim 1 wherein the parameter-based cost function comprises the at least one parameter.

6. (Previously Presented) The computer program product of claim 5 wherein the parameter-based cost function further comprises at least one weighting factor corresponding to the at least one parameter.

7. (Previously Presented) The computer program product of claim 6 wherein the parameter-based cost function is a linear function including at least one term wherein each term is a product of one of the at least one parameter and one of the at least one weighting factor correspondingly.

8. (Previously Presented) The computer program product of claim 6 wherein the parameter-based cost function is a non-linear function.

9. (Previously Presented) The computer program product of claim 1 wherein the parameter-based cost function is built in the calculation module.

10. (Previously Presented) The computer program product of claim 1 wherein the parameter-based cost function is set up by a user.

11. (Canceled)

12. (Previously Presented) The computer program product of claim 1 wherein the knowledge collection module collects the client information from a plurality of client databases in the virtual fab.

13. (Previously Presented) The computer program product of claim 1 wherein the virtual fab is an entity of a communications network.

14. (Currently Amended) The computer program product of claim 13 wherein the ~~virtual fab further includes~~ entities include:

- ~~a plurality of nodes;~~
- a manufacturing entity;
- an engineer entity;
- a foundry entity; and
- a design library entity; ~~and~~
- ~~a plurality of databases.~~

15. (Previously Presented) The computer program product of claim 1 wherein the user interface provides an interface of communication between a user and the inference engine.

16. (Previously Presented) The computer program product of claim 15 wherein the communication comprises:

- selecting parameters for the cost function;
- selecting the cost function;
- selecting a weighting factor for each of the parameters;
- choosing time scope and region scope; and
- displaying a result.

17. (Currently Amended) A computer program product that includes a computer-readable medium, the medium having stored thereon a sequence of instructions which, when executed by a processor, causes the processor to execute a method of calculating a client listing using an inference engine communicably coupled to a virtual fab, wherein the virtual fab comprises a plurality of entities that are communicably coupled via a network, and a database that stores client information, and the virtual fab is configured to:

receive integrated circuit manufacturing orders from a plurality of clients; and

facilitate access to client information by the plurality of clients and the entities as the entities produce the integrated circuit manufacturing orders; and, the method comprising:
selecting parameters related to clients;
selecting weighting factors to be associated with respective parameters;
collecting knowledge relating to the selected parameters;
calculating a parameter-based cost function from the collected knowledge; and
providing results, wherein clients are ranked according to values of a parameter-based cost function.

18. (Previously Presented) The computer program product of claim 17 including setting up a value table for each of the selected parameters.

19. (Previously Presented) The computer program product of claim 17 wherein collecting knowledge includes tracking client data associated with relevant parameters.

20. (Previously Presented) The computer program product of claim 17 further comprising setting up parameter-based cost functions.

21. (Previously Presented) The computer program product of claim 20 wherein setting up parameter-based cost functions includes selecting function type.

22. (Previously Presented) The computer program product of claim 20 wherein setting up parameter-based cost functions includes defining a function by a user.

23. (Currently Amended) A system comprising:
a virtual fab that manufactures one or more products for a plurality of clients, wherein the virtual fab comprises a plurality of entities that are communicably coupled via a network, and a database that stores client information, and the virtual fab is configured to:
receive integrated circuit manufacturing orders from a plurality of clients; and

facilitate access to client information by the plurality of clients and the entities as
the entities produce the integrated circuit manufacturing orders; and
wherein at least one parameter is associated with each of the plurality of clients; and
a computer program product that includes a computer-readable medium, the medium
having stored thereon a sequence of instructions which, when executed by a processor, causes
the processor to execute a method, the computer program product comprising: an inference
engine communicably coupled to the virtual fab, wherein the inference engine is configured to
rank the plurality of clients using the at least one parameter, the inference engine comprising:
a user interface configured to enable a user to select the at least one parameter;
a knowledge collection module configured to collect client information based on
the at least one parameter; and
a calculation module configured to receive the collected information and calculate
a client listing using a parameter-based cost function.